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1015

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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/955,732

DATE: 10/09/2001
TIME: 09:56:25

Input Set : A:\433.app.txt
Output Set: N:\CRF3\10092001\I955732.raw

ENTERED

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 4 <110> APPLICANT: Luche, Ralf M.
 5       Wei, Bo
 7 <120> TITLE OF INVENTION: DSP-15 DUAL-SPECIFICITY PHOSPHATASE
10 <130> FILE REFERENCE: 200125.433
C--> 12 <140> CURRENT APPLICATION NUMBER: US/09/955,732
13 <141> CURRENT FILING DATE: 2001-09-18
15 <160> NUMBER OF SEQ ID NOS: 27
17 <170> SOFTWARE: FastSEQ for Windows Version 4.0
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 1980
21 <212> TYPE: DNA
22 <213> ORGANISM: Homo sapiens
24 <400> SEQUENCE: 1
25 atggccctgg tcacagtgag ccgttcgccc ccgggcagcg gcgcctccac gcccgtgggg 60
26 ccctgggacc aggcggtcca gcgaaggagt cgactccagc gaaggcagag ctttgcggtg 120
27 ctccgtgggg ctgtcctggg actgcaggat ggaggggaca atgatgatgc agcagaggcc 180
28 agttctgagc caacagagaa ggccccgagt gaggaggagc tccacgggga ccagacagac 240
29 ttcgggcaag gatcccagag tccccagaag caggaggagc agaggcagca cctgcacctc 300
30 atggtacagc tgctgaggcc gcaggatgac atccgcctgg cagcccagct ggaggcaccc 360
31 cggcctcccc ggctccgcta cctgctggta gtttctacac gagaaggaga aggtctgagc 420
32 caggatgaga cggtcctcct gggcgtggat ttccctgaca gcagctcccc cagctgcacc 480
33 ctgggcctgg tcttgccccc ctggagtgac acccaggtgt acttagatgg agacgggggc 540
34 ttcagcgtga cgtctggtgg gcaaagccgg atcttcaagc ccatctccat ccagaccatg 600
35 tgggccacac tccaggtatt gcaccaagca tgtgaggcag ctctaggcag cggccttgta 660
36 ccgggtggca gtgccctcac ctgggccagc cactaccagg agagactgaa ctccgaacag 720
37 agctgcctca atgagtggac ggctatggcc gacctggagt ctctgcggcc tcccagcgcc 780
38 gagcctggcg ggtcctcaga acaggagcag atggagcagg cgatccgtgc tgagctgtgg 840
39 aaagtgttgg atgtcagtga cctggagagt gtcacttcca aagagatccg ccaggctctg 900
40 gagctgcgcc tggggctccc cctccagcag taccgtgact tcatcgacaa ccagatgctg 960
41 ctgctggtgg cacagcggga ccgagcctcc cgcatcttcc cccacctcta cctgggctca 1020
42 gagtggaacg cagcaaacct ggaggagctg cagaggaaca gggtcaccca catcttgaac 1080
43 atggcccggg agattgacaa cttctaccct gagcgcttca cctaccacaa tgtgcgcctc 1140
44 tgggatgagg agtcggccca gctgctgccg cactggaagg agacgcaccg cttcattgag 1200
45 gctgcaagag cacagggcac ccacgtgctg gtccactgca agatgggcgt cagccgctca 1260
46 gcggccacag tgctggccta tgccatgaag cagtacgaat gcagcctgga gcaggccctg 1320
47 cgccacgtgc aggagctccg gcccatcgcc cgccccaacc ctggcttcct gcgccagctg 1380
48 cagatctacc agggcatcct gacggccagc cgccagagcc atgtctggga gcagaaagtg 1440
49 ggtggggtct ccccagagga gcacccagcc cctgaagtct ctacaccatt cccacctctt 1500
50 ccgccagaac ctgagggtgg tggggaggag aaggttgtag gcatggaaga gagccaggca 1560
51 gccccgaaag aagagcctgg gccacggcca cgtataaacc tccgaggggt catgaggtcc 1620
52 atcagtcttc tggagccctc cttggagctg gagagcacct cagagaccag tgacatgcca 1680
53 gaggtcttct cttcccacga gtcttcacat gaagagcctc tgcagccctt cccacagctt 1740
54 gcaaggacca agggaggcca gcaggtggac agggggcctc agcctgccct gaagtcccgc 1800
55 cagtcagtgg ttaccctcca gggcagtgcc gtggtggcca accggaccca ggccttccag 1860
56 gagcaggagc aggggcaggg gcaggggcag ggagagccct gcatttcctc tacgcccagg 1920
57 ttccggaagg tggtgagaca ggccagcgtg catgacagtg gagaggaggg cgaggcctga 1980
60 <210> SEQ ID NO: 2
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RAW SEQUENCE LISTING DATE: 10/09/2001
PATENT APPLICATION: US/09/955,732 TIME: 09:56:25

Input Set : A:\433.app.txt
Output Set: N:\CRF3\10092001\I955732.raw

61 <211> LENGTH: 659
62 <212> TYPE: PRT
63 <213> ORGANISM: Homo sapiens
65 <400> SEQUENCE: 2
66 Met Ala Leu Val Thr Val Ser Arg Ser Pro Pro Gly Ser Gly Ala Ser
67 1 5 10 15
68 Thr Pro Val Gly Pro Trp Asp Gln Ala Val Gln Arg Arg Ser Arg Leu
69 20 25 30
70 Gln Arg Arg Gln Ser Phe Ala Val Leu Arg Gly Ala Val Leu Gly Leu
71 35 40 45
72 Gln Asp Gly Gly Asp Asn Asp Asp Ala Ala Glu Ala Ser Ser Glu Pro
73 50 55 60
74 Thr Glu Lys Ala Pro Ser Glu Glu Glu Leu His Gly Asp Gln Thr Asp
75 65 70 75 80
76 Phe Gly Gln Gly Ser Gln Ser Pro Gln Lys Gln Glu Glu Gln Arg Gln
77 85 90 95
78 His Leu His Leu Met Val Gln Leu Leu Arg Pro Gln Asp Asp Ile Arg
79 100 105 110
80 Leu Ala Ala Gln Leu Glu Ala Pro Arg Pro Pro Arg Leu Arg Tyr Leu
81 115 120 125
82 Leu Val Val Ser Thr Arg Glu Gly Glu Gly Leu Ser Gln Asp Glu Thr
83 130 135 140
84 Val Leu Leu Gly Val Asp Phe Pro Asp Ser Ser Ser Pro Ser Cys Thr
85 145 150 155 160
86 Leu Gly Leu Val Leu Pro Leu Trp Ser Asp Thr Gln Val Tyr Leu Asp
87 165 170 175
88 Gly Asp Gly Gly Phe Ser Val Thr Ser Gly Gly Gln Ser Arg Ile Phe
89 180 185 190
90 Lys Pro Ile Ser Ile Gln Thr Met Trp Ala Thr Leu Gln Val Leu His
91 195 200 205
92 Gln Ala Cys Glu Ala Ala Leu Gly Ser Gly Leu Val Pro Gly Gly Ser
93 210 215 220
94 Ala Leu Thr Trp Ala Ser His Tyr Gln Glu Arg Leu Asn Ser Glu Gln
95 225 230 235 240
96 Ser Cys Leu Asn Glu Trp Thr Ala Met Ala Asp Leu Glu Ser Leu Arg
97 245 250 255
98 Pro Pro Ser Ala Glu Pro Gly Gly Ser Ser Glu Gln Glu Gln Met Glu
99 260 265 270
100 Gln Ala Ile Arg Ala Glu Leu Trp Lys Val Leu Asp Val Ser Asp Leu
101 275 280 285
102 Glu Ser Val Thr Ser Lys Glu Ile Arg Gln Ala Leu Glu Leu Arg Leu
103 290 295 300
104 Gly Leu Pro Leu Gln Gln Tyr Arg Asp Phe Ile Asp Asn Gln Met Leu
105 305 310 315 320
106 Leu Leu Val Ala Gln Arg Asp Arg Ala Ser Arg Ile Phe Pro His Leu
107 325 330 335
108 Tyr Leu Gly Ser Glu Trp Asn Ala Ala Asn Leu Glu Glu Leu Gln Arg
109 340 345 350
110 Asn Arg Val Thr His Ile Leu Asn Met Ala Arg Glu Ile Asp Asn Phe

RAW SEQUENCE LISTING DATE: 10/09/2001
PATENT APPLICATION: US/09/955,732 TIME: 09:56:25

Input Set : A:\433.app.txt
Output Set: N:\CRF3\10092001\I955732.raw

```
111         355                 360                 365
112 Tyr Pro Glu Arg Phe Thr Tyr His Asn Val Arg Leu Trp Asp Glu Glu
113     370                 375                 380
114 Ser Ala Gln Leu Leu Pro His Trp Lys Glu Thr His Arg Phe Ile Glu
115 385                 390                 395                 400
116 Ala Ala Arg Ala Gln Gly Thr His Val Leu Val His Cys Lys Met Gly
117                 405                 410                 415
118 Val Ser Arg Ser Ala Ala Thr Val Leu Ala Tyr Ala Met Lys Gln Tyr
119             420                 425                 430
120 Glu Cys Ser Leu Glu Gln Ala Leu Arg His Val Gln Glu Leu Arg Pro
121         435                 440                 445
122 Ile Ala Arg Pro Asn Pro Gly Phe Leu Arg Gln Leu Gln Ile Tyr Gln
123     450                 455                 460
124 Gly Ile Leu Thr Ala Ser Arg Gln Ser His Val Trp Glu Gln Lys Val
125 465                 470                 475                 480
126 Gly Gly Val Ser Pro Glu Glu His Pro Ala Pro Glu Val Ser Thr Pro
127                 485                 490                 495
128 Phe Pro Pro Leu Pro Pro Glu Pro Glu Gly Gly Gly Glu Glu Lys Val
129             500                 505                 510
130 Val Gly Met Glu Glu Ser Gln Ala Ala Pro Lys Glu Glu Pro Gly Pro
131         515                 520                 525
132 Arg Pro Arg Ile Asn Leu Arg Gly Val Met Arg Ser Ile Ser Leu Leu
133     530                 535                 540
134 Glu Pro Ser Leu Glu Leu Glu Ser Thr Ser Glu Thr Ser Asp Met Pro
135 545                 550                 555                 560
136 Glu Val Phe Ser Ser His Glu Ser Ser His Glu Glu Pro Leu Gln Pro
137                 565                 570                 575
138 Phe Pro Gln Leu Ala Arg Thr Lys Gly Gly Gln Gln Val Asp Arg Gly
139             580                 585                 590
140 Pro Gln Pro Ala Leu Lys Ser Arg Gln Ser Val Val Thr Leu Gln Gly
141         595                 600                 605
142 Ser Ala Val Val Ala Asn Arg Thr Gln Ala Phe Gln Glu Gln Glu Gln
143     610                 615                 620
144 Gly Gln Gly Gln Gly Gln Gly Glu Pro Cys Ile Ser Ser Thr Pro Arg
145 625                 630                 635                 640
146 Phe Arg Lys Val Val Arg Gln Ala Ser Val His Asp Ser Gly Glu Glu
147                 645                 650                 655
148 Gly Glu Ala
152 <210> SEQ ID NO: 3
153 <211> LENGTH: 156
154 <212> TYPE: PRT
155 <213> ORGANISM: Homo sapiens
157 <400> SEQUENCE: 3
158 Asp Gly Ser Pro Leu Ser Asn Ser Gln Pro Ser Phe Pro Val Glu Ile
159  1               5                  10                  15
160 Leu Pro Phe Leu Tyr Leu Gly Cys Ala Lys Asp Ser Thr Asn Leu Asp
161             20                  25                  30
162 Val Leu Glu Glu Phe Gly Ile Lys Tyr Ile Leu Asn Val Thr Pro Asn
163         35                  40                  45
```

RAW SEQUENCE LISTING DATE: 10/09/2001
PATENT APPLICATION: US/09/955,732 TIME: 09:56:25

Input Set : A:\433.app.txt
Output Set: N:\CRF3\10092001\I955732.raw

```
164 Leu Pro Asn Leu Phe Glu Asn Ala Gly Glu Phe Lys Tyr Lys Gln Ile
165     50                  55                  60
166 Pro Ile Ser Asp His Trp Ser Gln Asn Leu Ser Gln Phe Phe Pro Glu
167 65                  70                  75                  80
168 Ala Ile Ser Phe Ile Asp Glu Ala Arg Gly Lys Asn Cys Gly Val Leu
169                 85                  90                  95
170 Val His Cys Leu Ala Gly Ile Ser Arg Ser Val Thr Val Thr Val Ala
171             100                 105                 110
172 Tyr Leu Met Gln Lys Leu Asn Leu Ser Met Asn Asp Ala Tyr Asp Ile
173         115                 120                 125
174 Val Lys Met Lys Lys Ser Asn Ile Ser Pro Asn Phe Asn Phe Met Gly
175     130                 135                 140
176 Gln Leu Leu Asp Phe Glu Arg Thr Leu Gly Leu Ser
177 145                 150                 155
180 <210> SEQ ID NO: 4
181 <211> LENGTH: 156
182 <212> TYPE: PRT
183 <213> ORGANISM: Homo sapiens
185 <400> SEQUENCE: 4
186 Asp Gly Ser Pro Val Pro Ser Ser Gln Pro Ala Phe Pro Val Gln Ile
187  1               5                  10                  15
188 Leu Pro Tyr Leu Tyr Leu Gly Cys Ala Lys Asp Ser Thr Asn Leu Asp
189             20                  25                  30
190 Val Leu Gly Lys Tyr Gly Ile Lys Tyr Ile Leu Asn Val Thr Pro Asn
191         35                  40                  45
192 Leu Pro Asn Ala Phe Glu His Gly Gly Glu Phe Thr Tyr Lys Gln Ile
193     50                  55                  60
194 Pro Ile Ser Asp His Trp Ser Gln Asn Leu Ser Gln Phe Phe Pro Glu
195 65                  70                  75                  80
196 Ala Ile Ser Phe Ile Asp Glu Ala Arg Ser Lys Lys Cys Gly Val Leu
197                 85                  90                  95
198 Val His Cys Leu Ala Gly Ile Ser Arg Ser Val Thr Val Thr Val Ala
199             100                 105                 110
200 Tyr Leu Met Gln Lys Met Asn Leu Ser Leu Asn Asp Ala Tyr Asp Phe
201         115                 120                 125
202 Val Lys Arg Lys Lys Ser Asn Ile Ser Pro Asn Phe Asn Phe Met Gly
203     130                 135                 140
204 Gln Leu Leu Asp Phe Glu Arg Thr Leu Gly Leu Ser
205 145                 150                 155
208 <210> SEQ ID NO: 5
209 <211> LENGTH: 156
210 <212> TYPE: PRT
211 <213> ORGANISM: Homo sapiens
213 <400> SEQUENCE: 5
214 Ala Thr Pro Pro Pro Val Gly Leu Arg Ala Ser Phe Pro Val Gln Ile
215  1               5                  10                  15
216 Leu Pro Asn Leu Tyr Leu Gly Ser Ala Arg Asp Ser Ala Asn Leu Glu
217             20                  25                  30
218 Ser Leu Ala Lys Leu Gly Ile Arg Tyr Ile Leu Asn Val Thr Pro Asn
```

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PATENT APPLICATION: US/09/955,732 TIME: 09:56:25

Input Set : A:\433.app.txt
Output Set: N:\CRF3\10092001\I955732.raw

```
219         35                  40                  45
220 Leu Pro Asn Phe Phe Glu Lys Asn Gly Asp Phe His Tyr Lys Gln Ile
221     50                  55                  60
222 Pro Ile Ser Asp His Trp Ser Gln Asn Leu Ser Arg Phe Phe Pro Glu
223 65                  70                  75                  80
224 Ala Ile Glu Phe Ile Asp Glu Ala Leu Ser Gln Asn Cys Gly Val Leu
225                 85                  90                  95
226 Val His Cys Leu Ala Gly Val Ser Arg Ser Val Thr Val Thr Val Ala
227             100                 105                 110
228 Tyr Leu Met Gln Lys Leu His Leu Ser Leu Asn Asp Ala Tyr Asp Leu
229         115                 120                 125
230 Val Lys Arg Lys Lys Ser Asn Ile Ser Pro Asn Phe Asn Phe Met Gly
231     130                 135                 140
232 Gln Leu Leu Asp Phe Glu Arg Ser Leu Arg Leu Glu
233 145                 150                 155
236 <210> SEQ ID NO: 6
237 <211> LENGTH: 155
238 <212> TYPE: PRT
239 <213> ORGANISM: Homo sapiens
241 <400> SEQUENCE: 6
242 Leu Ser Gln Pro Cys Leu Pro Val Pro Ser Val Gly Leu Thr Arg Ile
243  1               5                  10                  15
244 Leu Pro His Leu Tyr Leu Gly Ser Gln Lys Asp Val Leu Asn Lys Asp
245             20                  25                  30
246 Leu Met Thr Gln Asn Gly Ile Ser Tyr Val Leu Asn Ala Ser Asn Ser
247         35                  40                  45
248 Cys Pro Lys Pro Asp Phe Ile Cys Glu Ser Arg Phe Met Arg Val Pro
249     50                  55                  60
250 Ile Asn Asp Asn Tyr Cys Glu Lys Leu Leu Pro Trp Leu Asp Lys Ser
251 65                  70                  75                  80
252 Ile Glu Phe Ile Asp Lys Ala Lys Leu Ser Ser Cys Gln Val Ile Val
253                 85                  90                  95
254 His Cys Leu Ala Gly Ile Ser Arg Ser Ala Thr Ile Ala Ile Ala Tyr
255             100                 105                 110
256 Ile Met Lys Thr Met Gly Met Ser Ser Asp Asp Ala Tyr Arg Phe Val
257         115                 120                 125
258 Lys Asp Arg Arg Pro Ser Ile Ser Pro Asn Phe Asn Phe Leu Gly Gln
259     130                 135                 140
260 Leu Leu Glu Tyr Glu Arg Thr Leu Lys Leu Leu
261 145                 150                 155
264 <210> SEQ ID NO: 7
265 <211> LENGTH: 154
266 <212> TYPE: PRT
267 <213> ORGANISM: Homo sapiens
269 <400> SEQUENCE: 7
270 Ser Asp Pro Arg Val Pro Ile Tyr Asp Gln Gly Gly Pro Val Glu Ile
271  1               5                  10                  15
272 Leu Pro Tyr Leu Tyr Leu Gly Ser Cys Asn His Ser Ser Asp Leu Gln
273             20                  25                  30
```

VERIFICATION SUMMARY DATE: 10/09/2001
PATENT APPLICATION: **US/09/955,732** TIME: 09:56:26

Input Set : **A:\433.app.txt**
Output Set: **N:\CRF3\10092001\I955732.raw**

L:12 M:270 C: Current Application Number differs, Wrong Format